



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,444	09/12/2003	Gerrit de Wit	GEPL.P-128	7822

57381 7590 11/28/2007
Marina Larson & Associates, LLC
P.O. BOX 4928
DILLON, CO 80435

EXAMINER

WARTALOWICZ, PAUL A

ART UNIT	PAPER NUMBER
----------	--------------

1793

MAIL DATE	DELIVERY MODE
-----------	---------------

11/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/661,444	Applicant(s) DE WIT, GERRIT	
	Examiner Paul A. Wartalowicz	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/6/07 have been fully considered but they are not persuasive.

Applicant argues that the Examiner cannot ignore the declaration evidence provided in the case because based on the affidavit, the methods described in the present application would make apparent to a person skilled in the art that the limitation of the containers not biaxially oriented to be inherent to the specification.

However, the affidavit filed 11/2/06 does not lay out a reasoned explanation of why one ordinary skill in the art would. As stated in the last rejection, absent this evidence, the Examiner maintains that the specification does not render support to "containers...are not biaxially oriented."

Additionally, applicant argues that paragraphs 29-33 of the specification do not include working the material in at least two rejections.

However, silence in the disclosure does not provide support for a negative limitation.

Applicant arguments are substantially similar to arguments previously presented.

However, the rejection is maintained for the reasons put forth in the previous rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

These claims include the recitation "polyester that is not biaxially oriented". However, this limitation does not have support in the instant specification. The recitation in the specification (paragraphs 029-033) that applicant has pointed to for support does not render support to the negative limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 1-4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams '812 in view of Mori et al '804.

As to claims 1 and 10, Adams teaches a pressurized container made of polyesters reinforced with structural fibers (col. 1, lines 10-11; the container's wall is composite with structural fibers embedded within a resinous matrix, col. 3, lines 49-50; Figure 3, col. 5, lines 46-50). Adams also teaches virtually no leakage and no solubility of the gas in the polymer (col. 3, lines 34-36). Adams teaches that the containers can store pressurized gas that is defined as any mixture or material that, when enclosed in a container has an absolute pressure exceeding 40 psi at 21.1 degree Celsius or has an absolute pressure exceeding 140 psi at 54.4 degree Celsius (col. 3, lines 5-8). Compressed gases include but are not excluded to oxygen (col. 3, line 13).

Adams fails to teach a pressurized container wherein upon being filled with a liquid having a dissolved carbon dioxide content of about 0.4-0.6 wt % at an internal pressure of at least 1 bar, said pressurized container maintains a dissolved carbon dioxide content of at least 0.25 wt % after 0.5 year at a storage temperature of about 30 to 35 degree Celsius.

Mori et al. teaches a polyester bottle comprising polyethylene terephthalate which is well known for much reduced permeability of gases such as oxygen and carbon dioxide (col. 1, lines 17-21). The primary reference, Adams, also teaches that

containers such as vessels and bottles for pressurized gases are well known in the art to be made entirely of polymeric materials (col. 1, lines 7-11). Mori et al. further teaches that polyethylene terephthalate is a widely used material for reducing permeability of carbon dioxide and oxygen in pressurized containers (carbonated drink bottles, col. 1, lines 22-23).

Therefore, one of ordinary skill in the art would have recognized that polyethylene terephthalate is used in the primary reference to reduce permeability of carbon dioxide in pressurized containers since both the primary and secondary reference, Mori et al., teach containers with pressurized gases for reducing permeability of pressurized gases.

Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyester bottle comprising polyethylene terephthalate in Adams in order to reduce permeability of oxygen gas of the pressurized container as taught by Mori et al.

As to claim 2, Adams teaches reinforcing agents selected from glass or carbon fibers (col. 5, lines 21-22). As to claim 4, Adams teaches a plurality of reinforcing strips attached to and reinforcing said container with each strip encircling the container in a hoop direction at least once (filament winding of continuous fibers, col. 5, lines 30-32). As to claim 8, Adams teaches a pressurized container having a wall thickness of at least 0.2 mm (5-50 mils, col. 4, lines 64-65). As to claim 9, Adams teaches a pressurized container having a total liquid volume of at least 15 liters (5.5-31000 liters, col. 4, lines 45-48).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams '812 in view of Mori et al '804 in further view of Duse '763.

Adams and Mori et al. teach a pressurized container as described above.

As to claim 5, Adams and Mori et al. fail to teach a pressurized container wherein the reinforcing agents are glass fibers having a length of at least 0.5 cm.

Duse, however, teaches a reinforced polyester bottle with glass fibers having a length of at least 0.5 cm (0.5-2.0 cm, col. 3, lines 30-34) for the purpose of resisting fracturing during stretch-blow molding.

Therefore, it would have been obvious to one of ordinary skill at the time applicant's invention was made to have provided glass fibers having a length of at least 0.5 cm in Adams and Mori et al. in order to resist fracturing during the stretch-blow molding process as taught by Duse.

Claims 6, 7, and 10-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams '812 in view of Mori et al '804 in further view of Duse '763 and Zimmerman et al. '725.

Adams teaches a pressurized container having a wall thickness of at least 0.2 mm (5-50 mils, col. 4, lines 64-65) wherein the wall portion comprises a polyester (col. 3, lines 49-51) and has a reinforcing agent (col. 5, lines 44-51; figure 3) wherein the reinforcing agent is carbon or glass fibers (col. 5, lines 20-25).

Adams fails to teach that the wall portion comprises 30 to 50 wt % of the reinforcing agent.

Zimmerman et al., however, teaches polyester such as polyethylene terephthalate and polybutylene terephthalate (col. 1, lines 38-41) with glass fibers (col. 2, lines 46-50) in the amount of from 20-50 wt % (col. 2, lines 63-66, col. 4, lines 5-20) for the purpose of imparting outstanding physical properties (col. 1, lines 42-49) for molding resins (col. 1, lines 50-55).

Duse teaches that it is common for beverage containers to comprise polyethylene terephthalate (col. 1, lines 42-45).

Therefore, it would have been obvious to one of ordinary skill in the art to provide polyester with glass fibers in the amount of from 20 to 50 wt % (col. 2, lines 63-66, col. 4, lines 5-20) in Adams in order to impart outstanding physical properties (col. 1, lines 42-49) in a material known for molded resins (col. 1, lines 50-55) as taught by Zimmerman.

As to claims 10 and 19 referring to permeability property, Adams teaches a pressurized container made of reinforced polyesters (col. 1, lines 10-11; col. 3, lines 49-50; Figure 3, col. 5, lines 46-50). Adams also teaches virtually no leakage and no solubility of the gas in the polymer (col. 3, lines 34-36). Adams teaches that the containers can store pressurized gas that is defined as any mixture or material that, when enclosed in a container has an absolute pressure exceeding 40 psi at 21.1 degree Celsius or has an absolute pressure exceeding 140 psi at 54.4 degree Celsius (col. 3, lines 5-8). Compressed gases include but are not excluded to oxygen (col. 3, line 13).

Adams fails to teach a pressurized container wherein upon being filled with a liquid having a dissolved carbon dioxide content of about 0.4-0.6 wt % at an internal

pressure of at least 1 bar, said pressurized container maintains a dissolved carbon dioxide content of at least 0.25 wt % after 0.5 year at a storage temperature of about 30 to 35 degree Celsius.

Mori et al., however, teaches a polyester bottle comprising polyethylene terephthalate which is well known for much reduced permeability of gases such as oxygen and carbon dioxide (col. 1, lines 17-21). The primary reference, Adams, also teaches that containers such as vessels and bottles for pressurized gases are well known in the art to be made entirely of polymeric materials (col. 1, lines 7-11).

Mori et al. further teaches that polyethylene terephthalate is a widely used material for reducing permeability of carbon dioxide and oxygen in pressurized containers (carbonated drink bottles, col. 1, lines 22-23).

Mori additionally teaches that the liquid is a carbonated beverage (col. 1).

Zimmerman, teach polyester such as polyethylene terephthalate and polybutylene terephthalate (col. 1, lines 38-41) with glass fibers (col. 2, lines 46-50) in the amount of from 20-50 wt % (col. 2, lines 63-66, col. 4, lines 5-20) for the purpose of imparting outstanding physical properties (col. 1, lines 42-49) for molding resins (col. 1, lines 50-55) which inherently reduces permeability.

Therefore, one of ordinary skill in the art would have recognized that polyethylene terephthalate is used in the primary reference to reduce permeability of carbon dioxide in pressurized containers since both the primary and secondary reference, Mori et al., teach containers with pressurized gases for reducing permeability of pressurized gases and Zimmerman teaches a polyester with glass fibers of from 20

to 50 wt % (col. 2, lines 63-66, col. 4, lines 5-20) which commonly comprises beverage containers.

Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a polyester bottle comprising polyethylene terephthalate in Adams in order to reduce permeability of oxygen gas of the pressurized container as taught by Mori et al.

The combined teachings of Adams, Mori et al., Duse, and Zimmerman teach a substantially similar product as that of the invention such that the properties of the combined prior art, such as the claimed permeability of claim 20, would be substantially similar to that of the claimed invention.

As to claims 24 and 25, Adams and Mori et al. fail to teach a pressurized container wherein the reinforcing agents are glass fibers having a length in the range of 1/8 inch to an inch.

Duse, however, teaches a reinforced polyester bottle with glass fibers having a length of at least 0.5 cm (0.5-2.0 cm, col. 3, lines 30-34) for the purpose of resisting fracturing during stretch-blow molding.

Therefore, it would have been obvious to one of ordinary skill at the time applicant's invention was made to have provided glass fibers having a length of at least 0.5 cm in Adams and Mori et al. in order to resist fracturing during the stretch-blow molding process as taught by Duse.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Wartalowicz whose telephone number is (571) 272-5957. The examiner can normally be reached on 8:30-6 M-Th and 8:30-5 on Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/661,444
Art Unit: 1793

Page 11

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paul Wartalowicz
November 21, 2007

/Steven Bos/
Steven Bos
Primary Examiner
A.U. 1793